



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,584	01/26/2004	Bernhard Auburger	GR02P20537	1718
7590 05/20/2005 LERNER AND GREENBERG, P.A. POST OFFICE BOX 2480 HOLLYWOOD, FL 33022-2480			EXAMINER COLEMAN, WILLIAM D	
			ART UNIT 2823	PAPER NUMBER

DATE MAILED: 05/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,584

Applicant(s)

AUBURGER ET AL.

Examiner

W. David Coleman

Art Unit

2823

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2004.
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-20 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 01/04 2004
 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
 5) ☐ Notice of Informal Patent Application (PTO-152)
 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 3, 6, 7, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Wank et al., U.S. Patent 4,828,901.

Wank discloses a semiconductor process and a semiconductor device as claimed. Wank discloses the following limitations.

3. Pertaining to claim 1, Wank teaches a method for encapsulating an electronic component, which comprises:

providing a component with a coating of a flowable coating material;

hardening the material of the coating; and

completely encapsulating the assembly of the component and the coating in plastic (see whole document).

4. Pertaining to claim 2, Wank teaches the method according to claim 1, which further comprises applying the coating material to the component by immersion (please note that dipping is equivalent to immersion).

5. Pertaining to claim 3, Wank teaches the method according to claim 1, which further comprises carrying out the coating providing step by immersing the component in the coating material (i.e., dipping).

Art Unit: 2823

6. Pertaining to claim 6, Wank teaches the method according to claim 1, which further comprises:

joining a plurality of components together; and

carrying out the coating providing step by coating the plurality of components at the same time (the Examiner takes the position that since discloses a system for the electronics industry, it will imply that a plurality of components are carried out by coating the plurality of components).

7. Pertaining to claim 7, Wank teaches the method according to claim 1, which further comprises:

joining a plurality of components together; and

carrying out the coating providing step by coating the plurality of components sequentially (see the rejection reasoning as applied to claim 6, above).

8. Pertaining to claim 11, Wank teaches the method according to claim 1, which further comprises carrying out the hardening step by drying under environmental conditions (i.e. air drying is a conventional drying method, also see column 3, line 62).

9. Pertaining to claim 12, Wank teaches the method according to claim 1, which further comprises providing coating material of the coating with a high coefficient of expansion and good adhesion properties (the Examiner takes the position that sufficiently high number of materials have a coefficient of expansion associated as a fundamental property and the term "high" has no patentable weight).

10. Pertaining to claim 13, Wank teaches the method according to claim 12, which further comprises selecting the coating material from a plastic selected from the group consisting of polyurethane and silicone (i.e., the intermediate layer, column 3, line 5).

Art Unit: 2823

11. Pertaining to claim 14, Wank teaches the method according to claim 1, which further comprises selecting the coating material from a plastic selected from the group consisting of polyurethane and silicone (see the rejection as applied to claim 13 above).
12. Pertaining to claim 15, Wank teaches the method according to claim 1, which further comprises subjecting the assembly including the component and the coating to at least one further process operation before carrying out the plastic encapsulating step.
13. Pertaining to claim 16, Wank teaches the method according to claim 1, which further comprises carrying out the plastic encapsulating step by injection molding the assembly with PBT.
14. Pertaining to claim 17, Wank teaches the method according to claim 1, which further comprises carrying out the plastic encapsulating step by encapsulating the assembly by injection molding PBT (see second table).
15. Pertaining to claim 18, Wank teaches an electronic component, comprising:
a coating encapsulation of a flowable and hardened coating material; and
a plastic encapsulation encapsulating said coating.
16. Pertaining to claim 19, Wank teaches an electronic component, comprising:
a component body;
a coating encapsulating said body, said coating being of an originally flowable and later hardened material; and
a plastic encapsulation encapsulating said coating.
17. Pertaining to claim 20, Wank teaches an electronic component, comprising:

Art Unit: 2823

a coating encapsulation being of coating material applied in a flowable condition and hardened;
and
a plastic encapsulation encapsulating said coating.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 4, 5, 8, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wank et al., U.S. Patent 4,828,901 in view of Stewart et al., U.S. Patent Application Publication No. US 2003/0170450 A1.

Wank discloses a semiconductor process substantially as claimed. However, Wank fails to teach the following limitations.

20. Pertaining to claim 4, Wank fails to teach the method according to claim 1, which further comprises applying the coating material to the component by spraying. Stewart teaches that a coating can be applied by spraying. In view of Stewart, it would have been obvious to one of ordinary skill in the art to incorporate the spraying step of Stewart into the Wank semiconductor process because spraying is an alternative application method, [0075].

21. Pertaining to claim 5, Wank fails to teach the method according to claim 1, which further comprises carrying out the coating providing step by spraying the coating material on the component. In view of Stewart, it would have been obvious to one of ordinary skill in the art to

Art Unit: 2823

incorporate the spraying step of Stewart into the Wank semiconductor process because spraying is an alternative application method, [0075].

22. Pertaining to claim 8, Wank fails to teach the method according to claim 1, which further comprises carrying out the coating providing step by applying the coating material to the component by several successive coating operations (see the rejection of claims 4 and 5 and the accompanying motivation)

23. Pertaining to claim 9, Wank fails to teach the method according to claim 1, which further comprises carrying out the hardening step by supplying external heat. Stewart teaches carrying out the hardening step by supplying external heat. In view of Stewart, it would have been obvious to one of ordinary skill in the art to incorporate the external heat of Stewart into the Wank semiconductor process because the adhesive is preferably a solid or semi-solid at room temperature [0062].

24. Pertaining to claim 10, Wank fails to teach the method according to claim 1, which further comprises carrying out the hardening step by heating the coating. Please see the rejection an motivation as applied to claim 9 above.

Information Disclosure Statement

25. The information disclosure statement filed January and April of 2004 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Specification

26. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Conclusion

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to W. David Coleman whose telephone number is 571-272-1856.

The examiner can normally be reached on Monday-Friday 9:00 AM - 5:30 PM.

28. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri can be reached on 571-272-1855. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

29. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



W. David Coleman
Primary Examiner
Art Unit 2823